WHAT IS CLAIMED IS:

1. A method of forming a metal pipe by way of bending a flat metal plate, the method is carried out in steps of:

forming male section on a first end of said metal plate and female section on a second end parallel to said first end, respectively;

bending said metal plate so that said male section and said female section can be engaged with each other; and coupling said male section and said female section to be engaged with each other.

2. A method of forming a metal pipe by way of bending a flat metal plate, the method being carried out in steps of:

previously forming male section on a first end of said metal plate and female section on a second end parallel to said first end, respectively;

preliminarily bending said metal plate along an axis of said metal pipe which is a final forming body, at a position distant by a half length of a predetermined side from both end of said metal plate to form a predetermined angle of a final forming body of said metal pipe;

further bending said metal plate at predetermined positions to form predetermined angles with said preliminary bent position; and

coupling said male section and said female section to be engaged with each other to form a plane.

3. A method of forming a metal pipe according to claim 2, wherein after said both ends are preliminarily bent, sides of a plane opposite to a plane to be formed by way of close contact of said ends are bent more over said predetermined angle, and in this state, both ends of said opposite plane are further bent to form

predetermined angles and said ends are fastened each other.

4. A method of forming a metal pipe according to claim 3, wherein said plane opposite to said closely contacting plane is bent to be a concave plane toward a center of axis of said final metal pipe.

5. A method of forming a metal pipe having a desired angle by way of bending a flat metal plate, the method being carried out in steps of:

forming male section at a first end of said metal plate and female section at a second end parallel to said first end, respectively;

sequentially bending said metal plate at positions along sides of the final metal pipe from one of said both ends; and

coupling said male section and said female section at said both ends to be engaged with each other.

6. A pipe body having pair of edge sections that form closed end surface by way of contact with each other, in which surroundings of said edge sections form a plane jointly when said edge sections are in contact with each other,

wherein male engagement section and female engagement section engaged with each other are formed at said edge sections, respectively, and at the same time, said edge sections get in close contact with each other by means of separation-prevented engagement due to deformation of at least one of said female engagement section and said male engagement section.

7. A pipe body formed with closed end surface by means of joint consisting of end surface of one edge section and a back surface of the other edge section in planes crossing each other,

wherein male engagement section projected from said end surface of said one edge section is engaged with female engagement section formed at said other edge section, and at the same time, said edge sections get in close contact with each other in a state that separation of said male engagement section from said female engagement section is prevented due to deformation of said male engagement section.

8. A pipe body formed with closed end surface by means of joint constructed between a pair of edge sections parallel to each other,

wherein female engagement section and male engagement section provided at an edge section crossing with said pair of edge sections parallel to each other are engaged with each other, and at the same time, a supporting plane is formed at an end of the pipe body by means of separation-prevented engagement due to deformation of at least one of said female engagement section and said male engagement section.

9. A pipe body formed with closed end surface by means of joint constructed between a pair of edge sections parallel to each other,

wherein a female engagement section and a male engagement section provided at an edge section crossing with said pair of edge sections parallel to each other are engaged with each other, a second female engagement section and a second male engagement section provided at said pair of edge sections parallel to each other are engaged with each other, and at the same time, a supporting plane is formed at an end of the pipe body by means of separation-prevented engagement due to deformation of at least one of said female engagement section and said male engagement section.

10. A pipe body formed with closed end surface by means of joint constructed between a pair of edge sections parallel to each other,

wherein a female engagement section and a male engagement section provided at an edge section crossing with said pair of edge sections parallel to each other are engaged with each other, a second female engagement section and a second male engagement section provided at said pair of edge sections parallel to each other are engaged with each other, at the same time, a supporting plane is formed at an end of the pipe body by means of separation-prevented engagement due to deformation of at least one of said female engagement section and said male engagement section, and said pair of edge sections parallel to each other are in close contact with each other by means of separation-prevented engagement due to deformation of at least one of said second female engagement section and said second male engagement section.

11. A pipe body in which a pair of edge sections parallel to each other get in contact with each other to construct a joint surface thereof, thereby forming closed end surface,

wherein a female engagement section and a male engagement section provided at an edge section crossing with said pair of edge sections parallel to each other are engaged with each other by means of contact thereof, a second female engagement section and a second male engagement section provided at said pair of edge sections parallel to each other are engaged with each other by means of contact thereof, and at the same time, a supporting plane is formed at an end of the pipe body jointly with the surroundings thereof by means of separation-prevented engagement due to deformation of at least one of said female engagement section and said male engagement section, and said pair of edge sections parallel to each other are in close contact with each other by means of

separation-prevented engagement due to deformation of at least one of said second female engagement section and said second male engagement section.

12. A pipe body in which closed end surface is formed by way of constructing a joint between a pair of edge sections parallel to each other, and at the same time, said closed end surface is maintained by means of separation-prevented engagement due to deformation of at least one of female engagement section and male engagement section.

13. A pipe body having pair of edge sections that form closed end surface by way of contact with each other, in which surroundings of said pair of edge sections form a plane jointly when said pair of edge sections are in contact with each other,

wherein female engagement section and male engagement section engaged with each other are formed at said pair of edge sections, respectively, and at the same time, said pair of edge sections get in close contact with each other by means of separation-prevented engagement due to deformation of at least one of said female engagement section and said male engagement section.

14. A pipe body having pair of edge sections that form closed end surface by way of contact with each other, in which surroundings of said pair of edge sections form a plane jointly when said pair of edge sections are in contact with each other,

wherein uneven engagement sections engaged with each other are formed at said pair of edge sections, respectively, and at the same time, said pair of edge sections get in close contact with each other by means of separation-prevented engagement due to deformation of at least one of male engagement section and female engagement section provided at said uneven engagement section.

15. A pipe body having pair of edge sections that form closed end surface by way of contact with each other, in which surroundings of said pair of edge sections form a plane jointly when said pair of edge sections are in contact with each other,

wherein uneven engagement sections engaged with each other are formed at said pair of edge sections, respectively, and at the same time, a first deformation of at least one of said uneven engagement sections due to engagement of male engagement section and female engagement section provided at said uneven engagement section causes a second deformation of at least one of said uneven engagement sections, so that said edge sections get in close contact with each other in a state of separation-prevented engagement.

16. A pipe body according to claim 14 or 15, wherein parts of said respective engagements sections are located closely on the contact line of said pair of edge sections.

17. A method of forming a pipe body, comprising:

a first step of obtaining a first processed piece, wherein a metal plate of which female engagement section and male engagement section are provided at a pair of edge sections and at least one of said female engagement section and said male engagement section is deformable, is bent in the same direction along said pair of edge sections at the vicinity of said pair of edge sections to form closed end surface by means of contact thereof;

a second step of obtaining a second processed piece of a polygonal prism shape, wherein said first processed piece is further bent along said pair of edge sections at inside portions of the bent portions of said first processed piece such that said pair of edge sections are opposite to each other in separated state; and

a third step of obtaining said pipe body, wherein said pair of edge sections

get in close contact with each other, and at the same time, said engagement sections are engaged with each other to be deformed.

18. A method of forming a pipe body, comprising:

a first step of obtaining a first processed piece, wherein a metal plate of which female engagement section and male engagement section are provided at a pair of edge sections and at least one of said female engagement section and said male engagement section is deformable, is bent in the same direction along said pair of edge sections at the vicinity of said pair of edge sections to form closed end surface by means of contact thereof;

a second step of obtaining a second processed piece of a polygonal prism shape, wherein said first processed piece is further bent along said pair of edge sections at inside portions of the bent portions of said first processed piece such that said pair of edge sections are opposite to each other in separated state;

a third step of obtaining a third processed piece, wherein said pair of edge sections get in contact with each other, and at the same time, said engagement sections are engaged with each other to be deformed; and

a fourth step of obtaining said pipe body, wherein said pair of edge sections is pressed in a direction crossing the approaching direction thereof and said pair of edge sections get in close contact with each other utilizing a spring back force after the pressing.

19. A method of forming a pipe body according to claim 17, wherein an angle to be bent is almost equal to the angle after forming said pipe body when the inside portions of said bent portions are bent along said edge sections.

20. A method of forming a pipe body according to claim 17, wherein an angle

to be bent is greater than the angle after forming said pipe body when the inside portions of said bent portions are bent along said edge sections.